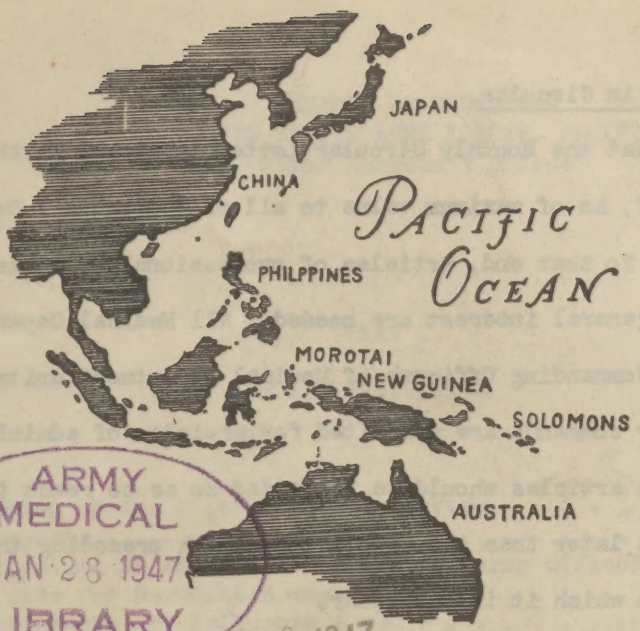

CIRCULAR NUMBER 13

CHIEF SURGEON'S OFFICE

GHQ AFPAC

1 December 1946

Articles for Publication in Circular

It is desired that the Monthly Circular Letter published by the Chief Surgeon, GHQ, AFPAC, be of maximum value to all of the Medical Department personnel in the field. To that end, articles of professional or administrative nature that might be of general interest are needed. All Medical Department officers as well as the Commanding Officers of Medical Department units and the Surgeons of the major commands are solicited for articles of administrative or technical value. Such articles should be forwarded so as to reach the Chief Surgeon, AFPAC, not later than the 20th of the month preceding the publication of the circular in which it is to appear.

GENERAL HEADQUARTERS
UNITED STATES ARMY FORCES, PACIFIC
Chief Surgeon's Office

CIRCULAR LETTER)
:
NO.....13)

APO 500
1 December 1946

PART I

ADMINISTRATIVE

A. GENERAL

I. Organization of Chief Surgeon's Office

1. The following is a list of commissioned personnel currently assigned to the Chief Surgeon's Office:

Brig. General James A. Bethea	Chief Surgeon
Colonel Albert R. Dreisbach	Deputy Chief Surgeon
Major Frederick H. Gibbs	Executive Officer and Chief, Administrative Division

ADMINISTRATIVE DIVISION

Major Hillas B. Brockett	Chief, Miscellaneous Branch
Lt. T. J. Shelton	Chief, Operations Branch
Lt. Edwin W. Payne	Operations Branch

PLANS AND OPERATIONS DIVISION

Colonel John C. Fitzpatrick	Director
Major John V. Painter	Chief, Supply Branch
Captain Felix G. Rajecki	Assistant to the Director
Lt. Harold Hendrix	Chief, Medical Records

PERSONNEL DIVISION

Lt. Colonel Lewis C. Shellenberger	Director
Major Sam A. Plemmons	Assistant Director
Captain Joseph W. Jacobs	Chief, Analysis Branch

MEDICAL INSPECTORS DIVISION

Colonel Albert R. Dreisbach	Director
Lt. Colonel Warner F. Bowers	Surgical Consultant

MISCELLANEOUS

Colonel Terry P. Bull	Dental
Colonel Stanley C. Smock	Veterinary
Lt. Colonel Mary G. Phillips	Nursing

II. Annual Reports

2. Annual reports of Medical Department activities in all major commands, United States Army Forces, Pacific, during the calendar year 1946 should be submitted to The Surgeon General as required by paragraph 5u (2), AR 40-5, and paragraphs 4, 5, and 6, AR 40-1005. It is desired such reports be comprehensive but concise accounts of the installation's or unit's activities, replete with illustrative details, largely narrative in style, and attractively presented. Problems and difficulties encountered should be described frankly. These reports should be submitted promptly after the close of the calendar year and in letter form to The Surgeon General through Commander-in-Chief, United States Army Forces, Pacific, APO 500, Attention: Chief Surgeon. Enough copies should be forwarded so that the report will arrive at General Headquarters, United States Army Forces, Pacific, in two copies.

3. An outline follows of some of the more important activities that should be discussed when applicable:

a. Date of activation and early history.
b. Function and organization.
c. Personnel.
    (1) Military.
    (2) Civilian personnel.
    (3) Foreign national personnel paid from cost of occupation.
    (4) Foreign national personnel paid from appropriated funds.
d. Training of personnel with training equipment.
e. Literature and aids.
f. Equipment, supplies and transportation.
g. Conservation of material and manpower.
h. Housing, water supply, bathing facilities, and laundry.
i. Food and messing, sewage and waste disposal.

j. Health of the command.
k. Insect control.
l. Venereal disease control.
m. Welfare, social service and recreation.
n. Medical, dental and veterinary professional services.
o. Special problems and their solution.
p. Other subjects of interest.

4. Statistical tables are not required. Suitable photographs should be furnished if feasible.

III. Annual Physical Examinations of Regular Army Officers

5. War Department Circular 304, 9 October 1946, contains instructions for proper accomplishment of the annual physical examination required for all Regular Army officers. Additional instructions are being sent out to the major subordinate commands of this theater in the form of a command letter. They will, in brief, require:

a. Final type physical examinations recorded on WD AGO Form 63 in duplicate for each Regular Army officer except Air Force personnel.
b. Examinations for Air Force officers (including other arms and services attached to Air Forces) on flying status to be accomplished on WD AGO Form 64 and on WL AGO Form 63 for officers not on a flying status, and forwarded through Air Force channels so as to reach General Headquarters, United States Army Forces, Pacific, in triplicate.
c. Examination to be accomplished at any medical installation designated to give final type physical examination.

(1) Air Force personnel will be examined at medical installations specifically designated by Commanding General of the major command in which Air Force units are serving and which have an aviation medical examiner or flight surgeon as a member of the Board.

d. The program to be initiated on 2 January 1947 and completed so that all forms will be received in complete and correct form in the Office of the Chief Surgeon, General Headquarters, United States Army Forces, Pacific, APO 500, by 1 April 1947.

6. Attention is invited to the fact that all medical officers concerned with physical examinations should be thoroughly familiar with the provisions of War Department Circular 304, 9 October 1946, AR 40-100, AR 40-105, changes thereto, and other current War Department directives. It is desired that extreme care be exercised in complete and accurate accomplishment of WD AGO Forms 63 and 64 to obviate the waste of time required in returning them for corrections. Current frequent causes of return include the following:

a. Statement that the inguinal ring is relaxed. This statement has no significance and what is desired is a statement that hernia is or is not present.

b. Statement that the chest x-ray shows numerous calcified masses. Current directives require a definite statement as to the actual size and number of such calcified areas.

c. Findings of scars, flat feet, varicose veins, hemorrhoids and similar abnormalities should include degree of severity and whether or not they are considered to be disqualifying. NS and ND is a sufficient statement in such instances.

d. The most frequent cause of return for completion is the recording of results of one microscopic urinalysis showing abnormal constituents. Obviously, such a case requires repeated examinations and may even require urological work-up before the Report of Physical Examination can be properly completed and forwarded.

e. Blood pressure and pulse rates exceeding maximum acceptable standards should be repeated as directed in paragraph 4b, War Department Circular 304, 9 October 1946.

7. Each report will be signed by three Medical Corps officers and will show the date and place of examination as required by paragraph 7 of War Department Circular 304, 9 October 1946.

8. The first indorsement on the reverse side of WD AGO Form 63 and WD AGO Form 64 will not be completed by installation performing the examination or intermediate reviewing officers in higher echelons. This indorsement is to be completed by the theater surgeon in compliance with paragraph 3a of War Department Circular 304, 9 October 1946.

9. This brief general discussion is intended to indicate the need for increased familiarity with AR 40-105 on the part of all medical officers and the special need at this time for becoming acquainted with the provisions of War Department Circular 304, 9 October 1946.

IV. Medical Care for Merchant Seamen

10. Radio WCL 23925, 24 October 1946, clarifying medical care for merchant seamen, is quoted:

"Clarifying medical care for Merchant Seamen advise:

(1) Admission:

(A) War Department and Maritime Commission agree to responsibility for medical care for Merchant Seamen aboard vessels operated for the account of the Maritime Commission under the US Flag (this includes former WSA register ships).

(B) WD has responsibility for Seamen of Army Transports.
(C) WD is further responsible for Seamen aboard Army chartered-bareboat or time charter-vessels of commercial operator.
(D) WD and Maritime Commission have no responsibility for Seamen aboard other time chartered, bareboat chartered, or privately owned and operated vessels.

(2) Charges for each category as set forth above follow:

(A) Bill local ships agent at $5.75 per day of hospitalization and $1 per out patient treatment.
(B) Treat as a WD civilian employee but rations are commuted.
(C) Bill as in 2 A.
(D) Seamen aboard Maritime bareboat or time chartered vessels and privately owned and operated vessels should be admitted only under par 6 AD, AR 40-590, and collection effected from individual or ships agent at $5.75 per day and $1 per out patient treatment; usually Seamen will have insufficient funds, therefore collection can best be made from local ships agent.

(3) Where possible in billing ships agent secure signature of master of vessel or of consular officer for certification of hospitalization. When in doubt concerning status of vessel contact local Maritime Commission Representative or ships agent.

(4) From collections reimburse hospital fund for subsistence prescribed AR 40-590 deposit balance to applicable account of replacing medical supplies per chapter 4, Technical Manual 14-700.

(5) Above in spirit of WD cir 262 CS and amends AR 40-590 accordingly."

V. Diagnostic Tests for Influenza A and B

11. Paragraph 1 a (4), War Department Circular 312, dated 19 October 1946, is quoted for the information of all concerned:

"Each army area laboratory is equipped for the performance of specific diagnostic tests for influenza A and B. Upon the occurrence at any army installation of cases suspected of being influenza, acute and convalescent blood serum specimens (4-5 cc) will be aseptically collected from each of several representative cases. From each patient selected the first or acute specimen should be obtained within 48 hours of the onset of illness and refrigerated. The second or convalescent specimen taken seven

to ten days later should be paired with the first or acute specimen and both, properly labelled, forwarded together to the appropriate army area laboratory. These specimens need only be obtained from a limited sample (10 to 20 cases) of suspected cases early in an outbreak in order to establish the presence of influenza A or B. These tests are confirmatory only."

Reports of suspected outbreaks should not await the outcome of tests but should be reported to the Surgeon of the major command concerned by radio with information copies to CINCAFPAC.

12. For further information concerning diagnostic tests for influenza A and B, see Section XII, this Circular.

VI. Malaria Case Report Cards

13. Section 3, Chief Surgeon's Circular Number 11, dated 1 October 1946, is hereby rescinded.

14. Information recently received from The Surgeon General's Office indicates Malaria Case Reports NS-17 not required and submission of same not desired.

VII. Comfort of Patients

15. It is believed that when one is sick, more comfortable accomodations should be provided than when one is well. Generally, everything should be done which will contribute to the comfort and morale of patients while sick in the hospital. Therefore, the following suggestions for the comfort of patients should receive consideration:

a. Special attention should be paid to bedside trays, that they be prepared as appetizingly as possible, and especially that every effort be made to serve the food hot.
b. Inner-spring mattresses should be obtained as rapidly as possible, especially for certain types of patients where indicated.
c. Wardrobes should be provided in women's wards by requisition or construction, when closets are not available.
d. Efforts should be made to use as attractive looking chinaware as possible. Chipped and cracked porcelain should be turned in.
e. Medical Department silverware should be requisitioned, and teaspoons should be used where indicated instead of tablespoons.
f. Individual toasters may be requisitioned for use in ward diet kitchens so that fresh, hot toast can be served.
g. It is believed that a greater effort should be made to iron the bed linen. In the laundry of sheets and pillow cases, every attempt should be made to remove the dinginess and improve the whiteness thereof.

h. It has been noted that some shower baths are not curtained, so that the water splatters over the floor, making it necessary to wade through dirty water to get to and from showers. Women's showers should be curtained to provide privacy.
i. Call bells should be secured for the use of patients who do not have access to electric call systems.
j. White blankets should be requisitioned and used to the extent available.
k. Attention should be paid to the repainting of beds and the refinishing of furniture when indicated.

B. PERSONNEL

VIII. Annual Reevaluation of Medical Corps Officers

16. During the period 1 January - 1 March each year, it is required that the classification of each Medical Corps officer be reexamined, and that an accomplished reevaluation form (WD AGO 178-3) be submitted so as to reach the Chief Surgeon, General Headquarters, AFPAC, not later than 15 March.

17. The importance of thoughtful deliberation on the part of each medical commander, consultant, or chief of service who contributes to the reevaluation procedure is apparent. When a recommendation for a change in classification is based on a proficiency not attained since the last reevaluation, a statement of the premise upon which recommendation is based should be included in sufficient detail to permit ready understanding by the reviewer. Data submitted will materially affect the utilization of an individual officer, and the procurement of specialists.

REFERENCES: 1. Technical Manual 12-406, February 1946 (Appendix II).
2. AFPAC Letter, AG 210.01 (24 Jun 46) MD, subject: Classification of Medical Department Officers.

IX. Reports of Medical Department Personnel (WD AGO Forms 8-19 and WD AGO Forms 8-164)

18. It has been noted that an increasing number of delinquent and inaccurate personnel reports are being received in this office.

19. These reports are utilized extensively as a source of information in connection with distribution of personnel, preparation of requisitions and for planning purposes. In order that maximum benefit may be obtained from these reports they should be accurately prepared and promptly submitted.

20. The following are some of the most common errors:

a. No entry in Table VIII, Form 8-19.
b. T/O and E under which unit is operating, major command to which assigned, and physical location not shown.
c. No entry in Column (5), Table VII, Form 8-19. The total number of specialists called for by the T/O under which

unit is operating should be shown in this column. This satisfies the requirement of Paragraph 9 on the reverse side of WD AGO Form 8-19 to the effect that only total specialists will be reported in Table VII and that Column (5) will indicate additional specialists required.

d. MOS numbers for Medical Corps officers shown on the WD AGO Form 8-164 do not agree with those shown in Table VIII, Form 8-19.

e. Alphabetical proficiency code not included with all Medical Corps MOS numbers other than 3000, 3100, and 3500.

f. Principal assigned duty not clearly indicated. Entries such as "Medical Officer, General Duty" do not explain the type work being performed by the officer concerned.

g. Enlisted service included in total months service of ASTP graduates.

h. Entries on WD AGO Form 8-164 to the effect that the total service and overseas service of some officers is not known even though they are present for duty or attached to nearby units.

21. All personnel responsible for preparation of these reports should thoroughly familiarize themselves with AFPAC Circular No. 49, 7 June 46, as amended by AFPAC Circular No. 91, 1 October 46, and the special instructions on the reverse side of WD AGO Forms 8-19 and 8-164.

X. Reporting of Venereal Disease

22. Queries have been received as to what action is to be taken on Monthly Venereal Disease Statistical Reports and Statistical Health Reports, WD AGO Form 8-122, in the event an individual develops multiple "New" venereal diseases. The reports involved should be interpreted as dealing with diseases rather than individuals, therefore, all diseases developed by an individual should be taken up on each report and included in the admission rate. For example, if an individual develops "New" gonorrhea, "New" syphilis, and "New" chancroid, all diseases will be included on each report. However, to avoid misinterpretation as to the number of individuals actually contracting venereal disease, appropriate cross references and remarks should be made on the unit Monthly Venereal Disease Statistical Report and Statistical Health Reports that in certain instances one individual developed two or more venereal diseases.

PART II

TECHNICAL

XI. Frozen Fresh Milk

Information reaching this office indicates a variance in the methods of defrosting frozen fresh milk by hospitals. The following method of defrosting and handling frozen fresh milk is recommended:

a. After removal from the 10° F. freezer storage, the milk should be allowed to defrost for 24 to 48 hours at chill box temperature (40° F). Uniformity of thawing may be facilitated by removing the quart containers from the cases and arranging them so that air circulation is allowed around each container. Milk should not be removed from the containers for defrosting as such practice exposes it to contamination.
b. Milk should be served from the original quart container within 48 hours after defrosting.
c. The formation of fat caseir precipitate is characteristic of frozen fresh milk. It is not objectionable and has no bearing on quality or soundness. This precipitate will be suspended upon agitation but will separate again upon standing.
d. Milk that has been defrosted should not be refrozen.

XII. Case Report (Submitted by Allen B. Coleman, 1st Lt., MC, and Peyton Jacob Jr., Capt., MC)

PART II: (Part I appeared in Chief Surgeon's Circular No. 12, 1 November 1946)

Discussion: The diagnostic considerations in this case were several. First, the possibility of a myelitis, such as occasionally occurs following the use of rabies vaccine prepared from brain tissue, was discussed; the absence of findings indicative of interruption of motor tracts above their termination in anterior horn cells were considered strong evidence against any such diagnosis, however.

The possibility of a diphtheritic polyneuritis was considered; however, the lack of history of recent previous illness, plus the absence both of any focus of diphtheria infection and of the well-known toxic manifestations of diphtheri caused this possibility to be discarded.

The two most likely possibilities considered were acute anterior poliomyelitis, and infectious polyneuritis of the Guillain-Barre type. The absence of fever and pleocytosis of the spinal fluid were considered somewhat opposed

to a diagnosis of poliomyelitis. The increased protein in the spinal fluid was considered evidence in favor of infectious polyneuritis, but absence of sensory changes is unusual in this syndrome.

Post-mortem examination: Aside from moderate pulmonary edema and congestion, and dilatation of the right heart, examination of the general viscera was negative.

The brain weighed 1400 grams; the meninges were normal. The pons cerebri was edematous; there was faint pink discoloration of the cut surface of the medulla and upper spinal cord.

Microscopic examination: The microscopic examination of specimens of brain, spinal cord, and spinal nerve roots, was performed by Dr. Albert B. Sabin, Field Director, Commission on Virus and Richettsial Diseases, Tokyo. He reported exudative lesions in the spinal motor nerve roots, and cranial nerve nuclei, consistent with the diagnosis of infectious polyneuritis (Guillain-Barre syndrome), with which the Army Institute of Pathology concurred upon examination of specimens forwarded to the Institute.

XIII. The Agglutination-Inhibition Test for Influenza (Laboratories Branch, Preventive Medicine Division, Office of the Surgeon General, U.S. Army)

1. The Hirst red cell agglutination and inhibition test, for the diagnosis of influenza, as modified by the Division of Virus and Richettsial Diseases of the Army Medical School is outlined below. Until further notice, this technique is the standard technique for use in U.S. Army medical installations.

2. Materials:

a. Kahn tubes
b. Kahn racks, flat bottom type without depressions
c. 1 cc. serological pipettes, graduated in 0.01 cc.
d. 1 per cent washed human red cells, type O.
e. 0.85 per cent NaCl
f. A(PRB) and B(Lee) influenza virus antigens in the form of infected, merthiolated allantoic fluids
g. Standard antisera to A and B influenza virus
h. The glassware must be chemically clean since traces of acid or alkali interfere with the test. Those tubes which do not have smooth round bottoms should be discarded. It is advisable to keep specially selected and cleaned tubes set aside for this use only. Standard antigens and antisera are prepared at the Army Medical School and will be obtained there from, except that specifically authorized stations may prepare antigen for local use.

3. Procedure

a. Preparation and Titration of Test Virus:-(1) Allantoic fluid antigens are prepared by inoculating 10-day embryos

intra-allantoically with 0.1 cc. of a previous passage of infectious allantoic fluid, usually diluted 10^{-3}. Forty-eight hours later the embryos are candled; dead embryos are discarded and liying ones are stored at 4-5 C. for 2 to 3 hours after which the eggs are opened and the allantoic fluids are collected and pooled. Sterile precautions are essential to prevent contamination. Potent pooled fluid, stored at 4-5 C. with 1.10,000 merthiolate, serves as satisfactory antigen for several months; however, this stock antigen should be retitered at intervals.

(2) To titrate this fluid, a series of 10 tubes are arranged, the first with 0.9 cc. and the remainder with 0.5 cc. saline. To the first tube is now added 0.1 cc. of the allantoic fluid (making 1.0 cc of a 1:10 dilution). This is mixed, 0.5 cc. removed and added to tube 2, etc., giving a series of 2-fold dilutions in 0.5 cc. volumes covering the range from 1/10 to 1/5120. Three to six cc. of a 1 per cent suspension of washed erythrocytes are taken from the stock bottle of washed cells, 0.25 cc. of the cell suspension is added to each tube and the tubes are thoroughly shaken. CAUTION: Do not go back into stock suspension of red cells with a pipette that has been in contact with virus tubes. Readings are made after the tubes have remained undisturbed for 2 hours at room temperature. The last tube showing definite agglutination is the endpoint.

(3) In the test for influenza antibodies, 4 units of virus in 0.25 cc. are employed. In the above titration of virus the agent is contained in 0.5 cc., therefore, the concentration required for the serum test is 8 times that represented as the endpoint of the virus titer. Thus, if the last tube showing agglutination contained 0:5 cc. of a 1/320 dilution, 8 times 1/320 or a 1/40 dilution would contain 4 units in 0.25 volume.

b. Preparation of Test Cells: Human O blood, either fresh or preserved for up to two weeks in Alsevers solution*, is employed. The cells are washed 3-5 times in saline solution. For the final centrifugation, the suspension is placed in a 15 cc. graduated tube and centrifuged at approximately 1800 r.p.m. for ten minutes. The supernatant is withdrawn leaving the packed cells; the volume of cells is read and enough saline solution is added to make a one per cent suspension.**

* Alsever's solution: 100 cc. contain 2.05 grams dextrose, 0.8 grams sodium citrate, and 0.42 grams sodium chloride; to this are added 0.055 grams citric acid. The final autoclaved solution has a pH of 6.1 and shows very slight or no evidence of carmelization.

** The washed blood cells are relatively unstable and any excess should be discarded after the day's run.

c. Preparation of Test Serum Dilutions: 0.20 cc. of the serum to be tested (other than controls) is placed in 1.40 cc. saline (making 1.6 cc. of a 1:8 dilution), mixed, and inactivated in a waterbath at 56 C. for 30 minutes. This reduces the "non-specific" inhibitory substances. Since both A and B antibodies are tested for simultaneously, two series of 2-fold dilutions of each serum sample is prepared, to one of which A virus is added, to the other B virus Two rows of 10 tubes for each serum sample are placed in a Kahn rack. 0.5 cc. amounts of saline solution are added to tubes numbers 2 and 10 in the front row; tube number 1 (far left) in the front row and those in the back row are left empty. After the serum has been inactivated, 0.25 cc. amounts of the 1:8 dilution are transferred to tube number 1 in the back row. Also 0.5 cc. is placed in tube number 2 of the front row. This is mixed thoroughly and 0.25 cc. is transferred to tube number 2 of the back row and 0.5 cc. to tube number 3 of the front row. The operation is repeated in this manner until two identical series of 2-fold dilutions are prepared with each tube containing 0.25 cc. of a 1:8 to 1:4096 dilution of serum.

d. Setting Up the Test: Having prepared the serum dilutions, 0.25 cc. of A type allantoic fluid, in a dilution calculated to have 4 agglutinating units, is added to each tube in the front row of dilutions of the test serum, and B virus is added to each tube in the back row. Finally, 0.25 cc. of a 1 per cent suspension of washed erythrocytes is added to each tube, the racks are thoroughly shaken and left undisturbed at room temperature until readings are made.

e. Preparation of the Controls: (1) Immune serum controls, known antisera to A and B influenza, are set up in the same manner as are the unknown sera except that tube number 1 of the first and second rows should contain 0.25 cc. of a 1:100 dilution of serum, and, similarly, tube number 2 of the front row should receive 0.5 cc. of the known antiserum diluted 1:100.

(2) Virus control (this is set up just before virus is added to serum tests): Two rows of 8 tubes are set up, each containing 0.5 cc. of saline, 0.5 cc. of the diluted A virus which is to be used with test sera (4 units/0.25 cc.) is placed in the first tube of set number 1, mixed, and 0.5 cc. transferred to tube number 2, etc., thus making a series of 2-fold dilutions in 0;5 cc. volumes. The procedure is repeated in the back row using diluted B virus. 0.25 cc. of 1 per cent cells is then added to the virus control tubes beginning at the right side of the rack and progressing toward the left, a fresh pipette is used each time the stock red cell suspension is entered in order to avoid possible contamination of cells with virus since this results in fuzzy titration endpoints.

f. Reading the Test: (1) It will be recalled that the virus agglutinates the red cells and that the presence of antibody inhibits this agglutination. Therefore, in the serum test proper, the absence of agglutination indicates the presence of antibody. Two readings should be made, one at 45 minutes, and one at 2 hours. This is necessitated by the fact that the rate of settling and the appearance of the agglutinating cells are influenced by the concentration of serum-protein in the tube.

(2) With little protein, such as in the last 5 or 6 tubes, the agglutinated cells fall out slowly and tend to stick to the side of the bowl at the bottom of the tube. If not agitated, they form a diffuse lining to the bowl which remains for many hours if undisturbed. Such tubes are readily differentiated from those in which agglutination has been inhibited. In the latter instance, the cells fail to cling to the margins of the bowl but slide down to the center, forming a compact "button" with sharply defined smooth edges.

(3) However, in the presence of more concentrated normal serum protein, the rate of sedimentation of the agglutinated cells is accelerated and the agglutination itself is more granular. Because of this, the cells have less tendency to cling to the sides of the bowl and if left for two hours will have formed a "button" at the bottom of the tube, difficult to distinguish from that found in the absence of agglutination. For this reason, a preliminary reading is made at 45 minutes, paying particular attention to the first few tubes of each series. At this time, a positive agglutination (no inhibition) consists of a definitely granular type of sedimentation on the lower sides of the bowl with a somewhat ragged edge to the forming "button". The tubes must not be disturbed during the preliminary reading, and care must be taken to prevent jarring the racks during the incubation period.

4. Interpretation

a. The principal value of the results of this test is the demonstration of an increase in titer of antibodies which develop during the course of infection with influenza virus. The actual titer of serum is of relatively little value, and single specimens are not to be tested. The only significant results are those obtained when the "acute" and "convalescent" sera are titered in the same test. Under these circumstances, the titer of each sample is recorded as the highest dilution of serum which inhibits agglutination; this is given as actual dilution, i.e., 1/8 for tube number 1 and 1/4096 for number 10. A significant rise in antibody is one in which the convalescent serum inhibits in at least a 4-fold greater dilution than the acute, thus: Acute phase inhibits A virus when diluted 1/64 and convalescent inhibits at 1/256. A shift of only one tube cannot be considered as evidence of antibody increase.

b. Reading the Controls: The immune serum controls are used at two hours as are the test sera. Under the proper conditions and depending on their potency, they should inhibit agglutination in the first 4 to 6 tubes (titer 1/800 to 1/3200).

c. The titration endpoint of a given serum is inversely affected by changes in the concentration of virus used in the test. Nevertheless, the titer of the positive control serum is more regularly reproducible than that of the virus. For these reasons the positive control sera are of considerable value in correlating the results of tests on successive days. While wide variations in the number of units of virus employed in the diagnostic tests are to be avoided, minor differences (a few units) will not appreciably affect the titer of the control sera and will not obscure a diagnostic rise in antibody in the paired test sera.

5. Reporting

Reports must give adequate information to the officer receiving them, and hence should include the titer rise and also the laboratory interpretation as to whether or not this is considered serologic evidence of influenza, by type. Positive reports are of great significance and should be communicated at once by telegraph or telephone from the laboratory to the submitting station and also to The Surgeon General's Office, Epidemiology Branch, Preventive Medicine Division. Such reports should be confirmed in writing, with notation to the effect that previous rapid report has been rendered.

PART III

STATISTICAL

XIV. Evacuation

1. During the period 28 September to 26 October the following patients were evacuated from the several major commands:

	AIR	WATER	TOTAL
EIGHTH ARMY	128	179	307
AFMIDPAC	102	6	108
AFWESPAC	39	260	399
XXIV CORPS	91	7	98

2. The following are the evacuations per 1000 strength for the period 28 September to 26 October:

JAPAN	2.91
KOREA	2.31
AFMIDPAC	2.88
AFWESPAC	3.94
AFPAC	3.18

3. As of 26 October 1946 the following number of patients were awaiting evacuation:

EIGHTH ARMY	20
AFMIDPAC	11
AFWESPAC	77
XXIV CORPS	37

XV. Hospitalization

1. The Bed Status Report of 26 October 1946 is as follows:

	TOTAL T/O BEDS PRESENT	TOTAL T/O BEDS ESTABLISHED	TOTAL T/O BEDS OCCUPIED
EIGHTH ARMY	5,250	5,250	2,174
AFMIDPAC	2,275	2,275	861
AFWESPAC	5,300	3,630	2,909
XXIV CORPS	2,350	2,250	787
TOTAL	15,175	13,405	6,731

2. Number of authorized beds, percent of authorized beds occupied, percent of operating beds occupied and percent of actual military strength in hospitals as patients are listed below:

	BEDS AUTHORIZED	% AUTHORIZED BEDS OCCUPIED	% OPERATING BEDS OCCUPIED	TOTAL PATIENTS IN HOSPITAL, % OF ACTUAL MILITARY STRENGTH
JAPAN	5,275	41	41	2.05
KOREA	2,276	35	35	1.85
AFMIDPAC	1,965	44	38	2.30
AFWESPAC	4,270	68	80	2.87
AFPAC	13,670	49	50	2.34

Actual strength equals 84% of authorized strength.

3. Tables showing various admission rates are listed below

ADMISSION RATES PER 1000 PER ANNUM

All Causes

Week Ending	AFPAC	AFMIDPAC	AFWESPAC	JAPAN	KOREA
6 Sept 46	562	274	542	578	759
13 Sept 46	584	239	603	623	676
20 Sept 46	624	235	686	653	686
27 Sept 46	562	224	606	620	584
4 Oct 46	574	183	635	670	496
11 Oct 46	609	241	709	675	549
18 Oct 46	*	*	670	717	546
25 Oct 46	*	*	754	758	561

Disease

6 Sept 46	500	224	470	519	700
13 Sept 46	524	207	554	553	602
20 Sept 46	562	197	619	588	628
27 Sept 46	514	179	551	576	536
4 Oct 46	514	148	574	606	426
11 Oct 46	545	194	652	598	482
18 Oct 46	*	*	600	640	489
25 Oct 46	*	*	673	681	493

Injury

6 Sept 46	62	50	72	58	60
13 Sept 46	60	33	48	71	74
20 Sept 46	62	38	67	65	58
27 Sept 46	48	45	54	44	48
4 Oct 46	60	34	61	64	70
11 Oct 46	64	47	57	77	66
18 Oct 46	*	*	71	76	57
25 Oct 46	*	*	81	77	67

ADMISSION RATES PER 1000 PER ANNUM

Psychiatric

Week Ending	AFPAC	AFMIDPAC	AFWESPAC	JAPAN	KOREA
6 Sept 46	10.2	26	8.5	6	1.7
13 Sept 46	6.8	22	4.4	4	1.0
20 Sept 46	13.1	46	8.8	7	1.6
27 Sept 46	10.8	27	2.6	14	.8
4 Oct 46	13.1	34	10	8	1 5
11 Oct 46	10.6	25	9	7	.9
18 Oct 46	*	*	3	7	2.5
25 Oct 46	*	*	4	25	1.3

Organic Neurological Disease

Week Ending	AFPAC	AFMIDPAC	AFWESPAC	JAPAN	KOREA
6 Sept 46	.3	0	1.0	0	0
13 Sept 46	.3	0	0	.8	0
20 Sept 46	.8	1.6	1.4	.4	0
27 Sept 46	.7	0	2.0	0	0
4 Oct 46	0	0	0	0	0
11 Oct 46	5	0	1.5	0	0
18 Oct 46	*	*	0	0	0
25 Oct 46	*	*	0	0	0

Common Respiratory Disease

6 Sept 46	64	31	70	68	32
13 Sept 46	68	24	85	72	53
20 Sept 46	72	35	106	65	41
27 Sept 46	64	45	90	56	37
4 Oct 46	56	19	51	77	37
11 Oct 46	64	17	63	98	31
18 Oct 46	*	*	92	86	38
25 Oct 46	*	*	96	102	50

Influenza

6 Sept 46	2.5	0	6	1	0
13 Sept 46	2.6	1.6	5	2	0
20 Sept 46	3.6	0	6	3	0
27 Sept 46	1.3	0	1.5	1.8	0
4 Oct 46	1.0	0	2.6	.4	0
11 Oct 46	2.5	0	6.5	.5	0
18 Oct 46	*	*	3.0	1.5	0
25 Oct 46	*	*	4.0	.5	0

ADMISSION RATES PER 1000 PER ANNUM

Primary Atypical Pneumonia

Week Ending	AFPAC	AFMIDPAC	AFWESPAC	JAPAN	KOREA
6 Sept 46	6.1	5.1	13	1.4	7
13 Sept 46	8.7	9.5	15	4.8	6
20 Sept 46	11.7	0	26	4.8	5
27 Sept 46	13.3	4.5	22	11	4
4 Oct 46	12.6	12	20	4.2	16
11 Oct 46	10	3.9	20	3.9	8.2
18 Oct 46	*	*	17	12	3.7
25 Oct 46	*	*	15	5	14

Common Diarrhea

6 Sept 46	7.4	0	13	5.7	3.5
13 Sept 46	8.2	0	16	6.8	1.2
20 Sept 46	7.8	0	16	5.3	0
27 Sept 46	3.6	1.5	7	2.8	.1
4 Oct 46	5.8	0	13	3.7	0
11 Oct 46	5.3	1.3	10	3.9	.1
18 Oct 46	*	*	11	1.5	.2
25 Oct 46	*	*	11	7.8	.1

Bacillary Dysentery

6 Sept 46	.4	0	1.0	0	1.2
13 Sept 46	1.0	0	2.4	.4	0
20 Sept 46	1.5	0	2.4	1.8	0
27 Sept 46	.3	0	.5	.5	0
4 Oct 46	2.0	0	5	.4	0
11 Oct 46	1.0	0	1	1.4	.1
18 Oct 46	*	*	2	0	.1
25 Oct 46	*	*	1	0	0

Amoebic Dysentery

6 Sept 46	5	0	14	.7	1.2
13 Sept 46	4	0	9.7	.8	2.3
20 Sept 46	3.2	0	7.4	1.3	1.2
27 Sept 46	2.0	0	4.7	.5	1
4 Oct 46	6.5	0	14	.4	1.0
11 Oct 46	3.9	0	9	.9	.2
18 Oct 46	*	*	13	0	.1
25 Oct 46	*	*	13	0	0.

ADMISSION RATES PER 1000 PER ANNUM

Malaria

Week Ending	AFPAC	AFMIDPAC	AFWESPAC	JAPAN	KOREA
6 Sept 46	48	6.9	70	9	152
13 Sept 46	42	3.1	70	6.8	105
20 Sept 46	29	3.2	48	5.3	66
27 Sept 46	18	1.5	37	3.3	28
4 Oct 46	20	1.5	39	6.5	27
11 Oct 46	26	1.3	63	4.4	18
18 Oct 46	*	*	40	4.9	9
25 Oct 46	*	*	47	4.7	12

Infectious Hepatitis

6 Sept 46	4.5	0	5.7	4.6	4.7
13 Sept 46	5.3	3.1	4.4	6.4	6
20 Sept 46	3.6	1.6	2	5.7	4
27 Sept 46	2.2	0	2	2.8	2
4 Oct 46	3.6	0	2.1	3.7	1.0
11 Oct 46	3.0	0	3.5	3.4	.3
18 Oct 46	*	*	4.0	3	.1
25 Oct 46	*	*	2.5	1.6	.2

Mycotic Dermatoses

6 Sept 46	8.3	3.4	11	9.6	1.2
13 Sept 46	9.2	7.9	8.8	12.4	2.3
20 Sept 46	8.1	12.8	9.3	7.0	5
27 Sept 46	6.9	6.0	8.9	6.1	5
4 Oct 46	6.9	1.5	12	6.5	1
11 Oct 46	6.2	5.1	8	6.3	2
18 Oct 46	*	*	11	7.	4
25 Oct 46	*	*	8	2.6	5

Venereal Disease

6 Sept 46	118	31	125	145	71
13 Sept 46	127	41	168	141	67
20 Sept 46	162	35	213	177	89
27 Sept 46	153	33	188	180	95
4 Oct 46	152	21	181	190	91
11 Oct 46	166	13	243	184	76
18 Oct 46	*	*	169	179	90
25 Oct 46	*	*	166	199	84

*Report not yet received.

Little

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